the simple and social Ascidia, but throughout its whole length. The cardiac fissure, in fact, is situated upon the convex surface of the crescent formed by the heart; it therefore, as it were, turns its back to the epicardiac sac, which can thus no longer, as in *Clavelina*, be applied to it to close it.

The cells of the cardiac epithelium present a row of muscular fibrillæ towards the cavity of the heart; their nuclei, on the contrary, are situated towards the pericardiac cavity. Neither the vessels nor the heart present any endothelium.

Digestive Tube.—All along the terminal intestine we can very easily see the composite tubular gland which Huxley was the first to indicate in all the groups of the Tunicata, but the existence of which has lately been denied, even in the simple Ascidia. This gland is formed by a quantity of small tubes terminating cæcally, which pour their secretion into the stomach by a common duct.

The anus presents a wide process, which projects into the interior of the cloacal cavity. It is further surrounded by several transverse muscular sphincters.

The cloacal cavity elongates considerably during reproduction, to become transformed into a cavity of incubation in which the embryos are developed. The oviduct, which opened into the cloaca by the side of the deferent canal, takes part in the formation of the incubatory chamber; while the upper lip of its orifice remains applied against the deferent canal, its actual aperture is carried to the very bottom of the incubatory cavity. The cloacal aperture is remarkable for a series of tonguelets or plates, exclusively belonging to the epithelium.

Generative Organs.—These are situated in the postabdomen, on the same side of the epicardiac lamina, in the dorsal face of the animal. The ovary is placed in front of the testis. There is a very distinct oviduct, applied throughout its whole length against the outer surface of the deferent duct; this oviduct is flattened and bounded by an unciliated epithelium, while the deferent duct is rounded and bounded by vibratile epithelium.

The ovary presents a cavity which is continued directly into that of the oviduct; this cavity is bounded by a flat epithelium, which, at certain points, becomes a typical germinative epithelium. It is at the expense of this germinative epithelium that the ovarian follicles are developed; these are never detached from the epithelium from which they originated. The mature ova fall into the ovarian cavity, to be expelled through the oviduct.

The ovary and the testis are never in function at the same time. —*Comptes Rendus*, September 13, 1886, p. 504.

A new Form of Opalina. By M. N. Warpachowsky.

The author describes a new form of parasite which he has met with abundantly in the body-cavity of young earthworms. The animal shows the general characters of *Opalina* and somewhat resembles *Opalina filum*, Clap., in external form; but it is distinguished from all other species of the genus known to the author by

the presence of a long spiculum, on account of which he names it *Opalina spiculata*.

The body is elongate-ovate, somewhat pointed in front; its length is 235–240 μ, and its breadth from 37–38 μ. The whole surface is covered with short cilia, which form regular longitudinal series, and are somewhat longer and more numerous at the anterior end. The nucleus is spindle-shaped and occupies the whole length of the body. Instead of the contractile vacuoles there are several pale vesiculiform nuclei.

The special character of the former consists in a long spiculum, which lies in the interior of the body, and occupies about two thirds of its total length.

A constriction at the hinder part of the body behind the spiculum indicates a new individual; but the formation here of a small spiculum always precedes the production of the divisional groove, so that the spiculum of the parent has absolutely no part in the production of the young. The length of the new *Opalina* thus produced is about 57–58 μ; its form is oval, its nucleus does not occupy the whole length of the body, and the spiculum is only about half that length. The newly formed *Opalinæ* either separate from the parent and swim away, or remain united to it to the number of two, three, or four. By its mode of production the parasite most resembles *O. prolifera*, Clap., by the presence of the spiculum *O. uncinata*, Clap.—*Bull. Acad. Imp. Sci. St. Pétersb.* tom. xxx. pp. 512–514.

A new Gazelle from the Somali-land.

By M. Franz Kohl.

The author describes a new species of gazelle, brought by M. J. Menges from the Somali-land, and of which the museum at Vienna possesses an adult male example.

Gazella Pelzelnii, Kohl (sp. n.).

This new species is most nearly allied to *Gazella arabica*, Lichtenstein (Hempr. & Ehrenb.), as regards both the coloration and the form of the horns. It is somewhat smaller, about the size of a small roe-deer; its head is smaller than in *G. arabica*, and the portion of the skull behind the horns a little longer in proportion. The horns, as in the compared species, are very slender, much longer than the head (27 centim.), but instead of 14–17 have 21 rings, of which, however, the last is very weak and indistinct. In the curvature of the horns the two species are alike; but in *G. Pelzelnii* they diverge much more, so that the distance between the tips is much greater—in *G. arabica* 3″ 6‴–3″ 10‴, in *G. Pelzelnii* 5″ 2‴ (13·6 centim.). Further differences are shown in the proportions of the skull.

Statement of the collector:—Pupil elongate, iris deep dark blue. Collected at Berberah, in the Somali-land, 21st January, 1885.—*Verh. zool.-bot. Gesellsch. in Wien*, Band xxxvi. 1886, *Sitz.* p. 4.